THAT WHICH IS CLAIMED IS:

1. An antimicrobial compound selected from the group consisting of peptides having an amino acid sequence selected from the group consisting of:

SEQ ID NO: 1;
SEQ ID NO: 2; and
SEQ ID NO: 3.

2. An antimicrobial compound having an amino acid sequence consisting of:

SEQ ID NO: 4.

3. A pharmaceutical formulation comprising a compound according to Claim 1 in a pharmaceutically acceptable carrier.

4. A pharmaceutical formulation comprising a compound according to Claim 2 in a pharmaceutically acceptable carrier.

5. An antibody that specifically binds to a compound according to Claim 1.

6. An antibody according to Claim 5, wherein said antibody is a monoclonal antibody.

7. A nucleic acid that encodes a peptide of Claim 1.

8. A nucleic acid of Claim 7, wherein said nucleic acid is DNA.

9. A method of treating stress in fish, comprising administering a nucleic acid according to Claim 7 to said fish in an amount effective to combat stress therein.

10. A method according to Claim 9, wherein said administering step is carried out by injecting said nucleic acid into muscle of said fish.

11. A method of monitoring fish health comprising:

(a) collecting a biological sample from a fish; and

(b) detecting the level of at least one endogenous endobiotic peptide in said sample, wherein lower levels of endobiotic peptides indicate decreased health in said fish.

12. A method according to Claim 11, wherein said endobiotic peptide has an amino acid sequence selected from the group consisting of:

SEQ ID NO: 1;
SEQ ID NO: 2; and
SEQ ID NO: 3.

13. A method according to Claim 11, wherein said endobiotic peptide is a histone-like protein.

14. A method of monitoring freshness of a fish food product, comprising detecting the level of at least one endogenous endobiotic peptide, wherein lower levels of endobiotic peptides indicate decreased freshness in said fish food product.

15. A method according to Claim 14, wherein said fish food product is selected from the group consisting of a fresh, refrigerated, or frozen, fish food product.

16. A method according to Claim 14, wherein said endobiotic peptide has an amino acid sequence selected from the group consisting of:

SEQ ID NO: 1;
SEQ ID NO: 2; and
SEQ ID NO: 3.

17. A method according to Claim 14, wherein said endobiotic peptide is a histone-like protein.

18. A method of screening for compounds useful for treating stress in fish, comprising the steps of:

(a) administering a test compound to a fish;

(b) collecting a biological sample from said fish; and

(c) detecting the level of at least one endogenous endobiotic peptide in said sample, wherein higher levels of endobiotic peptide in said fish as compared to those found in the absence of administration of said test compound indicate said compound is useful in treating stress in said fish.

19. A method according to Claim 18, wherein said endobiotic peptide has an amino acid sequence selected from the group consisting of:

SEQ ID NO: 1;
SEQ ID NO: 2; and
SEQ ID NO: 3.

20. A method according to Claim 18, wherein said endobiotic peptide is a histone-like protein.